



S O L A R   S T R E E T   L I G H T

## COMBATANT

| IP65 | IK09 |



Solar Module



Efficient  
Controller



LiFePO4 Li-ion  
Battery



Motion  
Sensor



Superior  
Outdoor LED



IP65  
Waterproof

# The Art of designing for light

Perfect combination of practical technology and optical art

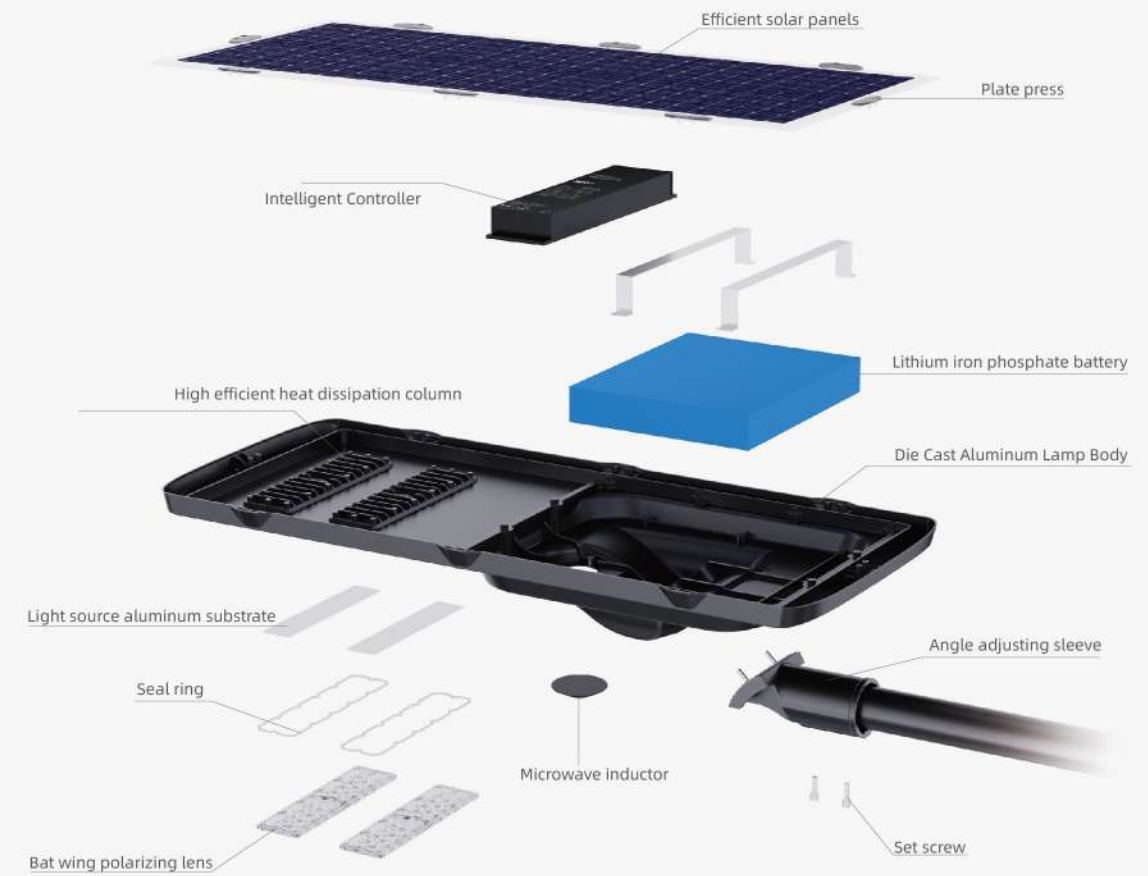
The fighter series is the latest lighting system at present. The combatant series combines the most cutting-edge technology with high-efficiency photovoltaic modules. The powerful LiFePO4 battery and intelligent controller are fashionable and compact in design. The intelligent system can control the lighting time and lighting mode to improve product performance and efficiency, while simplifying installation and enhancing user experience.



# STRUCTURAL MECHANICS

The combatant series light source adopts modular design, corrosion-resistant aluminum alloy shell, and tempered stainless steel

The combatant series adopts IP65 and IK08 shell, which increases the strength. It is carefully designed and durable, and can be controlled no matter in rain, snow or storm.



# TWO INSTALLATION METHODS

The luminaire adopts horizontal and vertical installation, and supports angle adjustment, which can be adjusted according to different lighting environment to meet different lighting needs.



## STRUCTURAL SUBJECT

The lamp body adopts integrated design

## OPTICAL ELEMENT

The light source adopts bat wing lens optical accessories

## ASSEMBLING METHOD

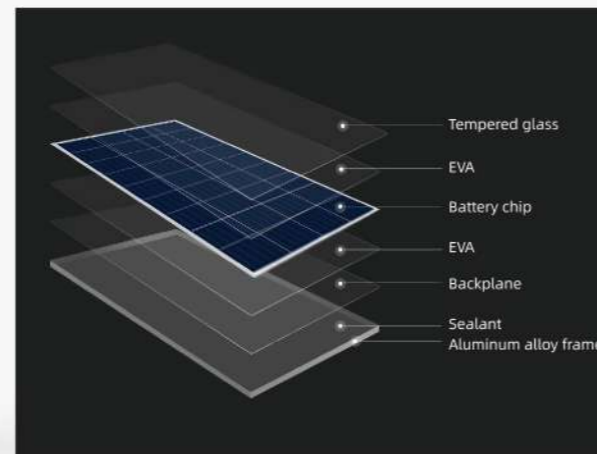
Sleeve angle adjustable installation mode

## EFFICIENT SOLAR PANELS



The material selection is strict. After many tests and classification, qualified battery chips are selected, and special lamination process is adopted to ensure the adhesion strength between Eva and tempered glass and back plate.

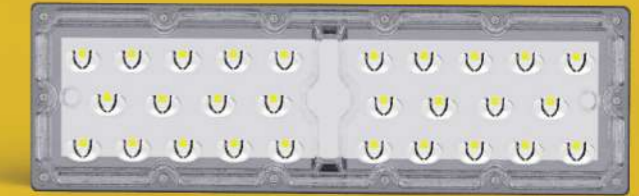
The utility model has the advantages of good performance, long service life and high power generation efficiency.



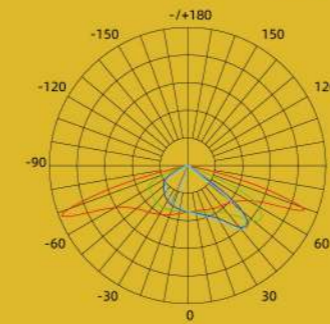
## HIGH EFFICIENCY LED

Using high-efficiency LED, the luminous efficiency is up to 180lm/W. The light sealing lens is made of anti ultraviolet PC, which has anti-aging and impact resistance performance, realizing long-term use.

Through the unique optical lens cut-off design, we can eliminate the pollution of lighting to the environment.



## BATWING LIGHT DISTRIBUTION



The latest patented light source technology realizes the light emitted from the light source to form a bat wing shape through the special structure of the lens.

Achieve the best uniform illumination, improve the lighting effect and increase the light coverage.

## LIFEPO4 BATTERY SYSTEM

Environment-friendly LiFePO4 batteries without metal components are used.

The cycle life is more than 1000 times, and it is safe to use without fire and explosion; High temperature resistance, large capacity, green environmental protection, non-toxic, pollution-free.



## INTELLIGENT POWER ADJUST

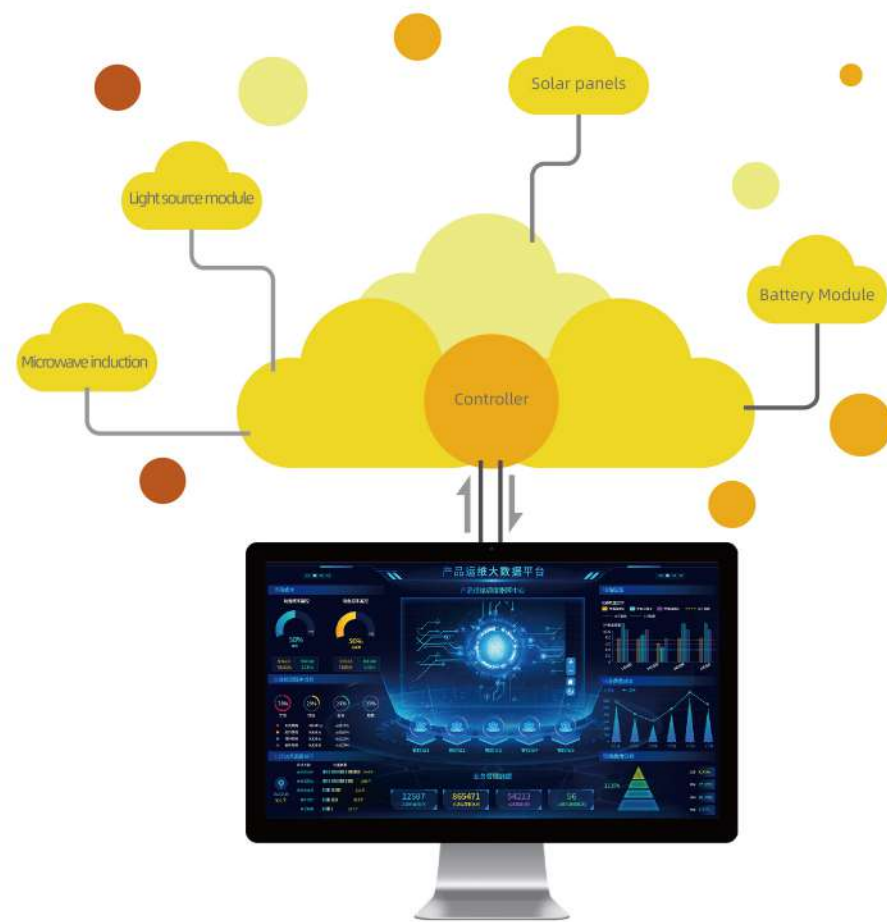
comes complete with built-in motion detection system that automatically regulate the light source from full bright to dim mode to increase battery autonomy.



# CHARGE LIGHTING POWER SUPPLY CONTROL SYSTEM

The charge and discharge efficiency of photovoltaic MPPT power supply controller is improved by adopting the circuit design of high-speed MOSFET pre-drive.

Intelligent power regulation, automatic weather judgment, reasonable discharge planning embedded in the microcomputer control system, charge and discharge a variety of intelligent control methods, make the whole system more efficient and energy-saving.



# APPLICATION SCENE

Streets, paths and bike paths

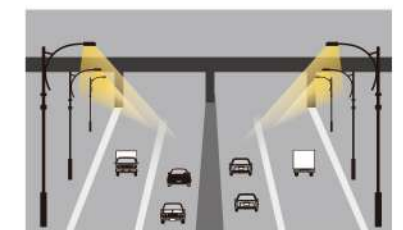
Residential streets

Shared zones, commercial

streets in urban areas

Rural roads, Urban roads

Motorways and ring roads

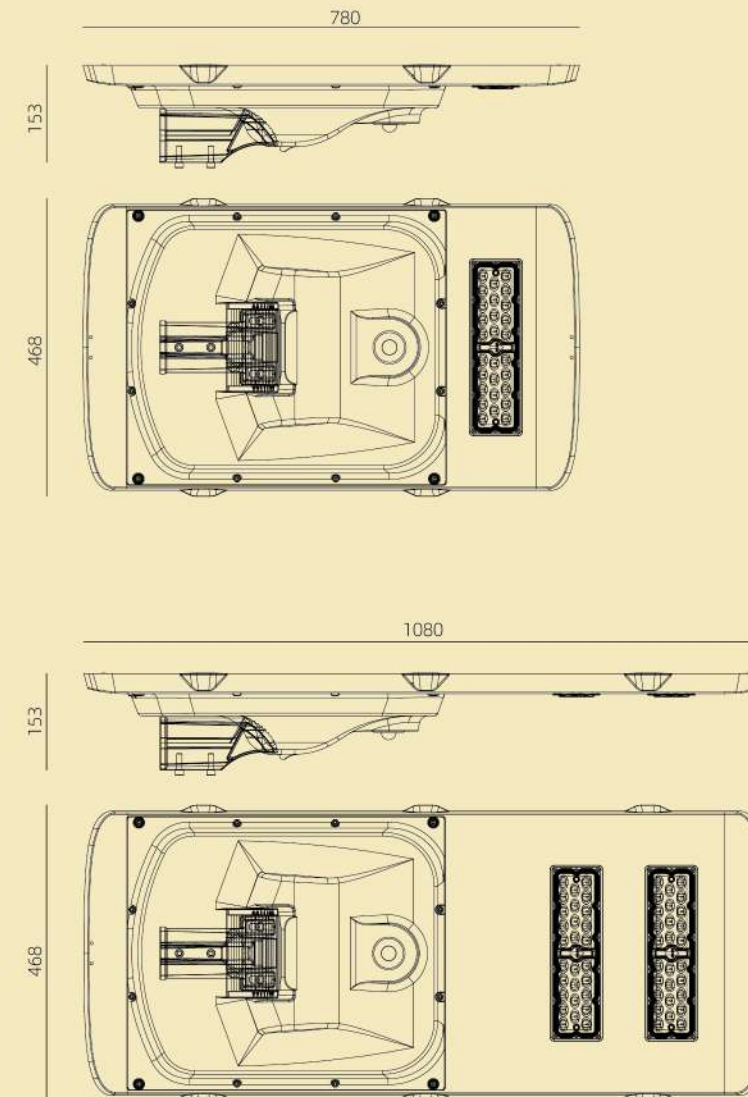


## PRODUCT CHARACTERISTICS

1. Low-voltage self-activation of the battery to ensure that the battery-fed conditions of normal charging;
2. It can automatically adjust the output power according to the remaining capacity of the battery to extend the use time.
3. Constant voltage output to load can be set to normal/timing/optical control output mode;
4. With dormancy function, can effectively reduce their own losses;
5. Multi-protection function, timely and effective protection of products from damage, while the LED indicator to prompt;
6. Have real-time data, day data, historical data and other parameters to view;

Technical parameter					
Product model	Combatant-A	Combatant-B	Combatant-C	Combatant-D	Combatant-E
Rated power	40W	50W-60W	60W-70W	80W	100W
System voltage	12V	12V	12V	12V	12V
Lithium battery (LiFePO4)	12.8V/18AH	12.8V/24AH	12.8V/30AH	12.8V/36AH	12.8V/42AH
Solar panel	18V/40W	18V/50W	18V/60W	18V/80W	18V/100W
Light source type	Bat Wing for light				
luminous efficiency	170Lm/W				
LED life	50000H				
CRI	CRI70/CRI80				
CCT	2200K-6500K				
IP	IP66				
IK	IK09				
Working Environment	-20°C~45°C.20%~90% RH				
Storage Temperature	-20°C~60°C.10%~90% RH				
Lamp body material	Aluminum die-casting				
Lens Material	PC Lens PC				
Charge Time	6 Hours				
Working Time	2-3 Days (Auto Control)				
Installation height	4-5m	5-6m	6-7m	7-8m	8-10m
Luminaire N.W	/kg	/kg	/kg	/kg	/kg

## PRODUCT SIZE



•IP65



•IK08



### • PROTECTION GRADE

IP65: the dust density completely prevents the foreign matter invasion, and may completely prevent the dust invasion, prevents the spray water invasion, prevents from all directions by the nozzle spray water enters the lamps and lanterns to cause the damage; Ko8:10J Impact Force (equivalent to the impact of a 5KG object falling from a height of 200mm on a surface) .



009



010

